Deposition of J. W. Mackenzie read into proceedings.

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IN THE CIRCUIT COURT OF BENTON COUNTY, MISSOURI

JAMES WEAVER,
JOHNNIE WEAVER,
LYLA MAE WEAVER,
JOE WEAVER,
MARY WEAVER and
LARRY WEAVER,
by next friend,

Plaintiffs,

vs.

CASE NO. 456

AMERICAN TOBACCO
COMPANY, INC.,

Defendant.

March 27, 1970
Warsaw, Missouri

VOLUME II

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THE COURT: You may proceed, Gentlemen.

MR. GEORGE MILLER: If the Court please, at this time we offer in evidence the deposition of James W. Mackenzie. It was taken on behalf of the plaintiffs in Room 305, North, University Medical Center, Columbia, Boone County, Missouri, starting at 1 p.m., on the 28th day of May, 1969.

For the plaintiffs, I appeared.

As appearances on behalf of the defendant were: Mr. J. D. James, Mr. Edward R. Hocker, 25 Broadway, New York, N.Y., and Miss Janet Brown, 25 Broadway, New York, N.Y.

This deposition is taken on behalf of the plaintiffs before Walter D. Ratliff, Jr., Notary Public--

MR. HARDY: If you want to skip all the preliminaries, we will save time.

MR. GEORGE MILLER: All right.

(The deposition of James W. Mackenzie, M.D., was then read, Mr. George Miller reading the questions, Mr. Stelling sitting in the witness chair and reading the answers of James W. Mackenzie, and Mr. James reading his objections, as follows:)

JAMES W. MacKENZIE, M.D.

of lawful age, being by me first duly examined, cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth, deposeth and saith as follows:

DIRECT EXAMINATION

Q State your name, Dr. MacKenzie.
A James W. MacKenzie.
Q Where do you live, Doctor?
A [DELETED]
Q And what is your profession?
A I'm a surgeon.
Q Are you any particular type of surgeon?
A Yes, I'm a thoracic surgeon.
Q Doctor, will you tell the Court and the jury what you mean by a thoracic surgeon?
A A thoracic surgeon is a surgeon who deals in diseases of the thorax, specifically that's diseases within the chest, with the lungs, heart and Mediastinum.
Q Are you what is normally termed an M.D.?
A Yes.
Q And where did you attend school?
A I went to Medical school at the University of Michigan.
Q And go ahead and tell us, following your medical school, your graduation of medical school there, as I assume you did graduate there?
A Yes.
Q And what you did following that part of your

schooling?

A I took internship at the University of Michigan Medical Center, followed this with four years of training in general surgery, two years of training in thoracic surgery, was on the staff at the University of Michigan for two years as an instructor in thoracic surgery and then came here in 1962 as head of the section of Thoracic and Cardiovascular Surgery.

Q And you say you came here in 1962.....

A The University of Missouri.

Q Are you connected with the University of Missouri and if so, in what capacity?

A Yes, I'm Professor of Surgery and Chief of the Section of Thoracic and Cardiovascular Surgery.

Q And how long have you been in that position in the State of Missouri?

A I've been Chief of the Section of Thoracic and Cardiovascular Surgery since July of 1962.

Q Did this Missouri University Hospital, and I assume that we are presently in the Hospital, is that correct?

A This is actually called the University of Missouri Medical Center.

Q We are in the University Medical Center?

A Yes.

MR. HARDY: She doesn't need to take it, if you are going to read the whole thing. We can make any objections or anything, we will note the page and the line at which we are objecting, and then you don't need to take it (to the reporter) except if we object.

(Reading of deposition resumed.)

Q And is there a portion of this building that is used especially as a thoracic department?

A Well, we have our own bed area which is more or less set aside and of course, we have certain rooms in which we do most of our operations in the operating rooms and then we have certain people that work only within the Section of Thoracic and Cardiovascular Surgery.

Q Are there other doctors connected with this Thoracic Surgery Department?

A Yes.

Q About how many doctors do you have connected with this department?

A I have two others who are my associates on staff, and then we have two others taking training in thoracic surgery and one general surgical resident or training who works through our service.

Q Doctor, in order to be a thoracic surgeon, does one undergo any special training or qualification other than that of general surgery?

A Yes, ordinarily one does take special training in thoracic surgery and also then undertakes to pass the examination in thoracic surgery.

Q Did you do that?

A Yes.

Q How many years did you say you took in thoracic surgery?

A Two years after completion of the general surgery.

Q Is there an American Board of Thoracic Surgeons?

A Yes.

Q And are you certified as a thoracic surgeon by the American Board of Thoracic Surgeons?

A Yes. Actually I should say that the name is the Board of Thoracic Surgeons, not American Board.

Q Could you tell us what this board is, who it is composed of?

A This is a board of self-regulation, I guess one could say, a recognition of training of thoracic surgeons, so this is the normal early end point, I guess one could say, of someone who has had training in thoracic surgery, that is, desires to pass the Board examination.

Q Now in order to be certified by this Board of Thoracic Surgeons, do you take special examinations?

A Yes.

Q And you did that?

A Yes.

Q What societies, medical societies, if any, do you belong to, Doctor?

A Well, I belong to the County, State and American Medical Associations, belong to the American College of Surgeons, Society of Thoracic Surgeons, American Association for Thoracic Surgery, the Central Surgical Association, Society of Academic Surgeons, several others whose names I can't recall.

Q When you said County and State, you're talking about Boone County and ....

A Boone County, State of Missouri.

Q Doctor, in the practice of medicine in your special field, are there occasional schools, seminars, or places where you go for additional special training?

A Well, there are national meetings and regional meetings given regularly, yes.

Q In connection with the Missouri University Medical Center, do you have a medical library?

A Yes.

Q And are you a professor of thoracic surgery as

well as a practicing thoracic surgeon?

A Yes.

Q Do you teach in the University of Missouri Medical School?

A Yes.

Q What subject or subjects do you teach?

A I teach thoracic surgery.

Q Have you been teaching thoracic surgery for some six or eight years since you've been in Missouri?

A Almost seven years.

Q Now in connection with your teaching, do you also have actual practice in the field of thoracic surgery....

A Yes.

Q ....here in the University Medical Center?

A Yes.

Q Would you know somewhere in the general area about how many cases you've had in the Missouri Medical Center since you've been here in this department of lung cancer patients?

A We've admitted to our service over 350 cases in the last six years. We've seen a number of others in consultation on other services and some we've seen as outpatients and were not admitted.

Q In addition to your actual practice and in

addition to your studies in school, since you went into actual practice and as a teacher in the University, do you constantly read and keep abreast of magazines, periodicals, and medical journals of various types?

A Well, I read a number of them.

Q You were the head of this thoracic surgery department in 1964, is that correct?

A Yes, I was.

Q I believe you have near you there on your desk, the medical records of one Cris Lyle Weaver, is that correct?

A That's correct.

Q Would you let me look at those just a minute, Doctor? I believe, Mr. James, for the purpose of this examination that you and I have agreed that these medical records have been sufficiently identified, is that correct?

MR. HARDY: I think the only ones I identified were the ones from the Department. Anyway, let's skip that. There is no question about the medical records.

(Reading of deposition continued.)

(REPORTER MARKED PLAINTIFF'S EXHIBIT 1 FOR IDENTIFICATION)

Q Doctor, I hand you what has been marked Plaintiff's Exhibit 1 and I'll ask you to tell us what that is.

A This is the medical records of the University of Missouri Medical Center on Cris Lyle Weaver, it carries his registration number at the center, 050720. It consists of the record of his visits here as an outpatient and his stay here as a patient in the hospital on two occasions as well as supporting medical records for these times.

Q Now so far as you know, does this package contain the entire medical records of Cris Lyle Weaver during his stay here on two occasions and during his treatment here as an outpatient?

A As far as I know, it does.

Q Plaintiff's Exhibit 1 consists of a light beige colored cover with several inserts, is that correct?

A Yes.

MR. GEORGE MILLER: With permission of counsel for the defendant, I will skip the next questionsand answers.

MR. HARDY: Skipping to page 12, line 2.

(Reading of deposition continued.)

Q I believe, Dr. MacKenzie, that these records indicate that Cris Lyle Weaver was in this hospital on two occasions in 1964. The first occasion was February 7th, 1964 and I believe the second occasion was April 22nd, 1964. During that time, did you personally become acquainted with Cris Lyle Weaver?

A Yes, I did.

Q And was he a patient here in the Missouri Medical Center in the Thoracic Department?

A He was.

Q And was he one of your patients?

A Yes.

Q Did you have occasion to visit with him and to discuss his complaints with him and his history of the time at least, immediately prior to his entry into the hospital here and did you also consult with, advise with, and assist in the treatment of this individual and with the diagnosis and prognosis of his case.

A Yes.

Q Doctor, I know that on some of these sheets in Plaintiff's Exhibit No. 1, there is a statement which says "Attending Physician, James MacKenzie, M.D." Now, are you the James MacKenzie that is represented here as being the attending physician?

A I am.

Q In other words, you were the attending physician of Oris Lyle Weaver while he was in the hospital?

A That's right.

Q Do you recall from what hospital or institution this man was referred to the Missouri Medical Center?

A I don't recall offhand.

Q If, by refreshing your memory, and I don't think there is any question about this, his being referred to you by the Wetzel Clinic at Clinton, Missouri, does that refresh your memory?

A Yes.

Q Is it the customary thing for the staff members or someone connected with the University Hospital to take the medical history and make a summary of that medical history for your benefit as well as the doctors on the staff, for the benefit of all of you?

A It's customary to have a history taken by a student as well as a member of our resident staff.

Q I direct your attention to one of the pages in this Plaintiff's Exhibit No. 1, to the page called University of Missouri Medical Center Summary and which is composed of the summary being composed of two pages, your name being signed to the second page as the attending physician and ask you if you recall that that was the summary of the medical history and

the history of this man as given to you and the members of the staff by Otis Lyle Weaver?

A Yes.

Q And that was taken upon his first entry into the hospital, I assume, February, 1964?

A Yes.

Q Would you tell us what his complaints were when he entered the hospital?

MR. JAMES: Pardon me, may I ask a question for the purpose of a possible objection? Doctor, as I understand it, you get two separate histories upon the entrance of a patient into the Medical Center, one taken by a student and one taken by a resident?

A Well, we often do, not always.

MR. JAMES: Do you know what was done in this case?

A I think he had two.

MR. JAMES: Neither one of those was taken by you, however?

A No.

MR. JAMES: Then I object for the reason unless the doctor took it, for the reason the record is the best evidence and he said he didn't take it, and I object.

Q I withdrew the question and ask the doctor this question. Doctor, assuming that the medical record summary indicates that the admission was 2-7-1964, the discharge date was 2-21-64 in which the man gives the history as follows: This is a 43 year old white male mechanic who gave the following history. In January, 1963 he was in an automobile accident and was hospitalized 10 days. At this time he had several chest x-rays. In August, 1963, he inhaled fumes from an oil pan which exploded near him. In October, 1963 he had pain in his left chest which was intense and boring through. In November, 1963, he noticed severe cough, especially in the morning. In December, 1963, he had one episode of gross hematemesis. He also complained of a from 15 to 35 pound weight loss. He had pain in the back and shoulders. The patient gave a history of smoking two packs of cigarettes a day for 30 years. Patient had no history of tuberculosis. He complained of fatigue and shortness of breath. As you recall, would that be about the history that was given to you and submitted to you by this patient and by the hospital staff on behalf of the patient?

MR. LANDY: Skip that one.

(Reading of deposition continued.)

Q My question was, do you recall that this is approximately the history that was given to you for this man?

A Well, what do you mean by approximately?

Q Substantially, is this as you recall?

A Yes.

Q Now, Doctor, let me ask you this, as the attending physician of James Mackenzie, you had access to all.....the attending physician of Cris Lyle Weaver; you had access to all the medical records, did you not?

A Yes.

Q And since he left this hospital, you have had access to the medical records?

A Yes.

Q Have you in the past few months, at my request, reviewed the medical records of Cris Lyle Weaver?

A Yes, I have.

Q And have you reviewed the x-rays that were taken here in the University Hospital of Cris Lyle Weaver?

A I have.

Q Have you also, at my request, reviewed the medical records of the Wetzel Hospital in Clinton?

A I have.

Q And have you reviewed the x-rays that were taken at the Wetzel Hospital in Clinton?

A I have.

Q Doctor, based upon the history that this man gave you, and based upon the findings in the hospital here, did you as attending physician reach any conclusion at the time Otis Lyle Weaver was in the hospital as to what condition he was suffering from?

MR. JAMES: I object to that for the reason there is no sufficient foundation to enable the doctor to give an opinion.

A Yes.

Q What conclusion did you reach as to that condition--

MR. HARDY: I am going to have to ask the witness not to answer until the Court rules on the objection. I guess we'd better waive that objection.

THE COURT: I thought perhaps the answer had been made.

(Reading of deposition continued.)

Q What conclusion did you reach as to that condition this man was suffering from?

A We reached the conclusion that he was suffering

from neoplasm of the lung with spread to the lymph nodes in the left side of the neck.

Q Now by neoplasm of the lungs, in ordinary layman's language, is that what we call cancer of the lung?

A Yes.

Q And based upon that conclusion, is that the condition which you as the attending physician and the hospital medical center here treated Mr. Weaver for?

A Yes.

Q Based upon the history that you were given and upon the examination which you made and the conclusion you reached as to what this man was suffering from, did you reach any conclusion, Doctor....an opinion as to the cause of this cancer or neoplasm of the lung?

A I reached.....

MR. HARDY: Skip it.

MR. JAMES: We will withdrew.

(Reading of deposition continued.)

Q Doctor, I believe, in repeating my question; did you reach a conclusion of this neoplasm or cancer of the left lung?

A Yes, we did.

Q And would you give us your opinion, based upon reasonable medical certainty as to the cause of this neoplasm?

MR. HARDY: You can skip it, again.

(Reading of deposition continued.)

A We felt that this man did have a carcinoma of the lung. On the basis of the examination, the x-ray findings, the history of smoking a number of packages of cigarettes for many years, combined with the biopsy of the lymph nodes taken from the left side of his neck, we felt that he did have carcinoma of the lung and that with reasonable certainty this was due to smoking cigarettes, this number of cigarettes for this period of time.

Q Doctor, while Mr. Weaver was in here, were there some biopsys made, and if answering this question, if you desire to, you may refer to the medical records?

A There are pieces of tissue taken both from the lymph nodes in the left side of the neck as well as from the main airway, the trachea, where it divides into the right and left sides.

Q And did either...I'll ask you to tell the Court

and the jury, what if anything, either one or both of these operations disclosed with reference to this man's condition?

MR. STELLING: This shows an objection by Mr. James.

MR. JAMES: Is this at the bottom of--

MR. STELLING: --page 19.

(Reading of deposition continued.)

MR. JAMES: May I again ask a question for the purpose of a possible objection?

Doctor, do you remember what the results were, except from the lines upon the record which you have in your hand?

A I think I'll have to have that clarified a little bit, you mean, if had I not reviewed the record?

MR. JAMES: Not quite. Perhaps, I should put it this way. Are you able to tell exactly what those findings were from your own memory without being as refreshed from the records, or do you now have to rely to some extent upon the records themselves for the exact findings from those tests?

A For instance, I don't know how precisely you require me to answer the question as put to me by

Mr. Miller, I can say that the biopsy of the division of the trachea showed squamous metaplasia as I recall. I also recall that the lymph nodes at the base of the neck showed undifferentiated carcinoma of the spindle cell type and this I can recall.....

MR. JAMES: From having refreshed your memory?

A Yes.

MR. JAMES: But further than that and as to the exact record findings, you, of course, would have to rely upon the records?

A Yes.

Q You do recall that such operations were performed on this man?

A Yes, yes.

Q And tell us what you mean by the operation in which the biopsy was taken from the avenue that leads into the lung itself?

A This is the biopsy of the carina which again is the place of the division of the main air passage of the trachea to the right and left bronchi and this biopsy was done at bronchoscopy whereby a tube is passed through the mouth and into the air passage and a piece of tissue taken.

Q And is that what was done in Mr. Weaver's case?

A This was done in Mr. Weaver's case. This tissue

was reported as showing squamous metaplasia.

Q Now then, as to the biopsy of the left node, could you tell us how that was carried out?

A It was carried out under local anthesia (sic).

Q Tell us the surgical method by which the biopsy was carried out of the left node?

A Of course, I did not do this operation myself.

Q Yes, I understand that.

A And I assume this was done in the way that it is usually done here. According to the report of the operation, it was done, the incision was made in the anterior portion of the neck above the clavicle, the lymph nodes exposed and either all or part of them removed for examination.

Q And then this biopsy that we talk about, is that a cutting or a piece of the actual lymph node itself?

A It may be whole node or it may be a portion. There are more than one.

Q And then tell us whether or not, this node or portion thereof, is studied by powerful microscope to determine the actual cellular makeup?

A Well, this tissue is then taken to the Patho- Department where physicians who specialize at tissue, treat it, stain it, and then under a microscope.

Q I direct your attention to one portion of this medical record which says "Operative Record, Thoracic Surgery, being a grey sheet, and says "Approved by J. W. Mackenzie, M.D." And is that a portion of the record regarding the operation that you performed?

A Well, this is the portion concerning the first operation, the bronchoscopy where tissue was taken from the carina.

Q And did this record here that I've handed you, is this a correct summary of exactly what was done on this occasion?

A Well, again, I was not at the operation and the approval as evidenced by my signature is merely that the form of the operative note as was dictated by resident, Dr. Trask, is correct. I see no inconsistencies.

Q Is that the usual type of an operation you perform in a case of that sort?

A Yes.

Q You have reviewed these various operative records that are contained in Mr. Weaver's folder, have you not?

A Yes, I have.

Q And are these various operative records the usual and ordinary type of operative procedures in a

case such as Mr. Weaver's?

A Yes.

Q I direct your attention, Dr. Mackenzie, to the yellow sheet of Mr. Weaver's hospital records and the title at the top of the page being admission records, and direct your attention to your signature at the bottom of that page?

A Yes.

Q Now, the record itself, says "Discharged, diagnosis; bronchogenic carcinoma and will you read us the rest of the sentence?

A With cerebral and osseous metastasis, post irradiation therapy.

Q So that will be better identified, what was the day of that?

A These are for his.... there should be a discharge and a date there. Discharged, yes. Admission date, 4-22-64, discharge date, April 25th.

Q Will you be a little bit more specific, Doctor, and explain for the members of the jury, what do we mean by bronchogenic carcinoma?

A This is a carcinoma form of cancer which arises from the lung, more specifically, the bronchi of the air passages of the lung.

Q And what do you mean by cerebral metastasis?

A This has to do with spread to the brain.

Q And you mean then by this sheet, by the wording of this sheet, that before, or when Mr. Weaver was discharged and by April 23rd, 1964, this cancer in his lung has spread to the brain?

A This was our clinical diagnosis, yes.

Q And what do you mean by osseous metastasis?

A That is bone spread.

Q What do you mean by post irradiation therapy?

A This is following radiation therapy, after treatment with radiation therapy.

Q Was Mr. Weaver treated with radiation therapy here at the Medical Center?

A He was.

Q And was that prior to his last admission in the latter part of April, 1964?

A It was.

Q And was it between his first admission in February and his second admission in April, that he was treated here at the University Medical Center?

A I think I'd have to review the record to be sure he didn't start it before his discharge, but it was completed.....he was started on radiation therapy prior to his discharge and it was completed as an outpatient, as I recall.

MR. GEORGE MILLER: Mr. James, did you want to read that?

MR. JAMES: That isn't necessary.

(Reading of deposition continued.)

Q Doctor, I'll hand you what has been designated as Defendant's Exhibit 9 being one of the x-rays that was purportedly taken at the Missouri University Center and I'll ask you to look at this x-ray under glass here ...First, I'd like for you to give us the date that this x-ray was taken.

A The date on the x-ray is February 7th, 1964.

MR. GEORGE MILLER: At this time, I would like for the record to show, if the Court please, that I had handed Dr. Mackenzie what at that time had been designated as Defendant's Exhibit No. 9 and has now been introduced as Plaintiff's Exhibit No. 36. (Mr. Miller indicating Exhibit 36 at the viewbox.)

(Reading of deposition continued.)

Q And was this one of the x-rays taken of the chest and chest cavity of Orie Lyle Weaver?

A Yes, it is.

Q I would like for you as a thoracic surgeon and the attending physician of Cris Lyle Weaver to tell the members of the jury and the Court exactly what you find from your examination of this x-ray?

A Before I do that.....

MR. JAMES: Now, George, you can skip my comment and those other questions, or read the other questions--whatever you like.

MR. GEORGE MILLER: All right.

(Reading of deposition continued.)

MR. MILLER: For the purpose of the record, we'll back up just a bit here and let me ask Dr. Mackenzie these questions.

Q Dr. Mackenzie, as a part of your studies as a medical student in the University of Michigan, did you study x-rays, the interpretation and the reading of x-rays?

A We did have some courses involving that, yes.

Q Since your graduation and in the practice of medicine, is that a part of your medical practice to be able to study and read these x-rays?

A As far as chest x-rays, yes, Sir, indeed.

Q And do you do this type of work almost daily in

your work here at the University Medical Center?

A We look at the x-rays of our patients every day and also those we see in consultation.

Q And have you over the course of years, looked at, observed and read thousands of x-rays?

A At least many hundreds, if not thousands.

Q And do you use these x-rays when you are teaching your classes for young doctors?

A Yes.

Q And do you explain and read from these x-rays and interepret (sic) these x-rays to your classes?

MR. JAMES: Pardon me, George. I think you're getting a little leading and I don't mind on formal questions but to get into the real guts of this thing, I think you ought to not lead the doctor and I'm sure the doctor doesn't need to be lead (sic).

Q Doctor, in your teaching, I'll ask you if you do read x-rays and explain them to your class?

A Yes.

Q And have you looked at and studied this x-ray that we've spoken of here of Cris Lyle Weaver on various occasions?

A Yes, I have.

Q Now, will you then point out, by oral testimony

to the members of the jury exactly what this x-ray discloses?

A This is an x-ray of Mr. Weaver, identified by the registration number and name, an x-ray of the chest, includes the lung, mediastinum and the heart. There is one area of major interest that is most apparent and that is an abnormal shadow or density in the hilum of the left lung. I think for the localization of this it would be more accurate to look at the lateral x-ray which was made accompying(sic) this. There is a small apparent (sic) infiltration more distally in the lung on the left side.

MR. GEORGE MILLER: Mr. James then makes the note that at that time the Doctor was looking at Defendant's Exhibit No. 10--which has now been introduced as Plaintiffs' Exhibit No. 37.

(Reading of deposition continued.)

Q Doctor, will you tell us from your examination of these, both of these films, what they show?

A The major abnormality again, is a mass involving the hilum of the left lung.

Q You're looking and pointing with your pencil now to Exhibit No. 9....

A This localized here.....

Q Number 10. Doctor, I'm going to ask you to take your pen and if you will, put a small "b" or an "x" if you prefer, in the center of the location of those density areas that you have spoken of.

(Mr. George Miller indicating exhibit on the viewbox.)

(Reading of deposition continued.)

You're using now a red pencil and I'm asking you to put a small "b" at the center of this area which you've spoken of as shown by the x-ray which has been identified as Defendant's Deposition Number 9. Now, if you will, look also at the Exhibit Number 10, Defendant's Deposition Exhibit Number 10, and take your red pencil and mark where you believe the center of that dense area to be, if it is shown on that.

A I must say that the limits of it are not quite as clear in the lateral.

Q Did you finish, Doctor? Is the center where that "b" is?

A The limits are not as clear because it's superimposed upon the other structures.

Q Now, there with reference to the bronchi or the bronchus, or whatever you call it, is this dense area

located?

A This is near the major bronchi of the left side.

Q I noticed from the pathologists (sic) report, or one of the x-ray....maybe the x-ray report in the records, that a left hilar mass was spoken of. Is this the stain you just pointed out on these two x-rays?

A Yes. This is a left hilar mass.

Q Hilar mass?

A Yes.

Q And thismass that you've talked about, this area that you've talked about in the left lung of Mr. Weaver, is that in ordinary layman's language, the cancer that you've spoken of?

MR. JAMES: The objection is withdrawn.

(Reading of deposition continued.)

A I think in terms of interpretation (sic) of an x-ray, we can say this is an abnormal shadow, an abnormal mass lesion. On the basis of the x-ray alone, one cannot make a definite diagnosis.

Q Now, based upon all of the examination and the history and everything that was done for Mr. Weaver and all these records here at the hospital, based on your personal observation and attendance, I'll ask

you if, taking all things into consideration, is this the location of what you previously told us was the cancer of the left lung?

MR. JAMES: I object to that for the reason that it dumps in a basketful of hypothesis in referring to the whole records and I think the doctor also states specifically.... or the question ought to state specifically, what the facts are on which he bases his answer.

THE COURT: What was the first part of the question again?

MR. GEORGE MILLER: "Now, based upon all of the examination and the history and everything that was done for Mr. Weaver and all these records here at the hospital, based upon your personal observation and attendance, I'll ask you if, taking all things into consideration, is this the location of what you previously told us was the cancer of the left lung?"

THE COURT: It will be overruled.

(Reading of deposition continued.)

Q You may answer.

A Would you repeat the question?

MR. GEORGE MILLER: The court reporter reads the question.

Now, read your answer.

(Reading of deposition continued.)

A Yes.

Q Doctor, I'm going to ask you a hypothetical question. And in this question, we assume various hypothesis, and at the conclusion of this hypothesis, then I'll ask you to give us an opinion. Assuming that Orie Lyle Weaver was born on January 22nd, 1921 at Kingston, Missouri. He served about three years in the United States Navy beginning about 1937, that during his young adult life after his discharge from the Navy, he worked on a farm, he worked as a mechanic in garages, that he worked for a year or two as a floor sander in Kansas City, that he worked at North American plant in Kansas City on some type of a machine for a short period of time, that he worked for a very short period of time as a fireman on the railroad, that he started working in a Chevrolet garage in Trenton, Missouri in 1945 and worked there for about a year as a mechanic. He went to Arizona, he worked in a garage at Casa Grande, Arizona as a mechanic for about a year

and went to Las Vegas, Nevada and worked for a short time as a mechanic, assuming further that he came back to Gilman City which is in northwest Missouri. In about 1940, he purchased a garage which was used for the general care of automobiles, farming equipment, that he moved to Warsaw, Missouri, in about 1957 and built his own garage, and worked thereafter in his own garage from 1947 up until the time of his death or up until the time he became so incapacitated that he could no longer work. That this garage was approximately 24 by 38 feet, had a door in either end, that it had two large fans standing up on stands that were used for ventilation, that he had other small fans that he used for ventilation. Assuming that his mother's maiden name was McBride, that she died of cancer of the liver in 1956, that his father's name was John Walter Weaver, that he died about the age of 67, he died of hardening of the arteries, a heart attack. Assuming that he fell out of a tree when he was coon hunting about 1949 and broke a leg, that he was for all of the active portion of his life, from the time he got out of the Navy until a few months before his death that he was a great outdoorsman, that he fished and hunted a great deal. Assuming further that he drank some whiskey, that he drank some beer. Assuming

further that from the time he was in his teens, he began to smoke and particularly during the latter few years of his life, he smoked an average of two or more packs of cigarettes per day. Assuming further, Dr. Mackenzie that he was an avid smoker and by an avid smoker, I mean one who smokes regularly, consistently, and that he was an habitual inhaler of smoke, that he would frequently light one cigarette from another, being what is commonly referred to as a chain smoker, that he worked as a mechanic and during many hours of the day while he was working, at least during portions of the hours of the day while he was working, he had a cigarette in his mouth, and instead of removing the cigarette from his mouth, he was constantly inhaling the smoke from the end of the cigarette as well as smoking the cigarette. Assuming that one of the first acts he would commit upon waking up in the morning was to light a cigarette, that he continued this practice of smoking cigarettes right until the time he was first admitted to the hospital here in 1964. That he tried on different occasions to quit smoking cigarettes but didn't seem to be able to accomplish this feat and continued to smoke. Assuming further that these two periods of time that he spent in the hospital here, that you've told us about, that you've testified to from

these records, assuming further that January 1963, he was involved in an automobile accident and was hospitalized in the Wetzel Hospital, that he complained of pains in his chest, of an injury to his chest, that the x-rays of this hospital showed no broken bones and no pathology and that he was discharged from the hospital apparently in good physical condition. Assuming further that in August of 1963, he inhaled some fumes from an oil pan which exploded near him but was not hospitalized and had no further complaints from this episode. Assuming that in October, 1963, he developed pain in his left chest which was intense, that in November of 1963, he noticed severe cough, especially in the mornings, assuming that he had pain in his back and shoulders and with the history of smoking that I've given to you, assuming that he had no history in his background at all of tuberculosis, that he further complained of fatigue and shortness of breath, assuming that he came to this hospital in February, 1964, and the diagnosis which you've already spoken of was made, assuming further that he was discharged from the hospital about the 21st of February, 1967...63...'64, approximation, and that then this treatment of therapy was performed on Mr. Weaver for a period of time, he was readmitted to the hospital on or about

April 22nd, 1964 and these further x-rays and diagnosis was made. Assuming that after he left the hospital, and I'm speaking of the Missouri University Hospital here, the latter part of April, I believe April 22nd, 1964, he went back to his home near Warsaw, Missouri. Assuming further, that in the few days remaining of his life, he experienced constant pain, progressive weakness, that he took sedatives and that he took various medications as pain relievers, assuming further that he gradually grew weaker and weaker until he died on or about May 9th, 1964, would you give us first, Doctor, your opinion as to the cause of his death on May 9th of 1964?

MR. JAMES: I object to the question for the reason it assumes as true facts that are not in evidence and fails to include other facts in evidence that would be necessary in order to enable the doctor to give an opinion without resorting to pure speculation at best.

Q You may answer the question. Do you have an opinion as to the actual cause of his death?

A Yes, I do.

Q And would you tell us what that opinion is?

MR. JAMES: Same objection.

A I think this man died of metastasis from bronchogenic carcinoma.

Q And assuming all these facts stated in that hypothetical question, would you give us your opinion as to the cause of the bronchogenic carcinoma.

MR. JAMES: Same objection.

A I think the bronchogenic carcinoma was caused by the prolonged smoking over a number of years of cigarettes.

MR. MILLER: You may inquire.

(Whereupon Mr. Hardy takes the stand and reads the Answers while Mr. James reads the following Questions as follows:

CROSS EXAMINATION

BY MR. JAMES:

Q. First, Doctor, I think, for the record, I think we should count pages and state them into the record that are contained in Defendant's Exhibit one and I'd like for you to check my count, if you would, please. Not that I don't trust myself, but I don't want to miss any. This is off the record while I'm counting.

MR. MILLER: For the purpose of the record, Plaintiff offers into the record, Plaintiff's Deposition Exhibit Number 1.

Q. Let the record show that Plaintiff's Exhibit 1 is a clip or folder containing a folder of 75 separate sheets, some of which have entries on both sides of them and some of which have smaller sheets pasted onto them and that this count has been made by both the attorney and by the doctor as being 75 sheets. Doctor Mackenzie, have you been advised of the trial date of this lawsuit in which you will testify?

A. Yes, in general terms.

Q. It's in late October. Where do you expect to be at that time?

A. In New Jersey.

Q. Are you changing jobs?

A. Yes.

Q. Where are you going?

A. It will be the Medical School of Rutgers University in New Brunswick.

Q. As a professor?

A. And chairman of the Department of Surgery.

Q. Of Surgery?

A. Yes.

Q. Do you expect to appear in person as a witness at the trial of this case?

A. No.

Q. Were you ever asked by Mr. Miller to appear in person?

A. Yes.

Q. When was that?

A. I can't recall the date. It was some months ago...

Q. Was it sometime within the last year?

A. I think so, but again, I just don't recall.

Q. Was that the first time you'd talked to Mr. Miller about the case?

A. I can't recall the first time that I talked with Mr. Miller about thecase, but the first time I recall talking with Mr. Miller was when he said that there was

a possibility of pending litigation or there was litigation.

Q. Either a possibility of pending litigation or that there was?

A. My recollection is vague.

Q. But you had discussed the case with Mr. Miller prior to the occasion on which you told him you were going to be gone to Rutgers is that correct?

A. I'm not sure. I didn't keep a record of these consultations we've had so I would be just guessing. I really don't know.

Q. How long have you known you're going to Rutgers?

A. Approximately five months.

Q. As I understand, you don't recall when you first talked to Mr. Miller about the case?

A. No.

Q. Can you place it within years?

A. It wasn't two years ago, I'm quite sure of that. I think it was within the last year, but I'll just have to be vague because I have no record of it.

Q. How many times have you discussed the case with Mr. Miller since then?

A. In general terms or in specific terms?

Q. Specific terms.

A. Three times, I believe.

Q. And when was the last time prior to today?

A. Yesterday.

Q. Do you recall the last time prior to yesterday?

A. Day before yesterday.

Q. Do you recall the last time before that?

A. No, I don't.

Q. Have you discussed the case with anyone else since the death of Mr. Weaver?

A. In general terms, I have. I've discussed the case with our pathologist. I don't recall anyone else. Well, wait.....I did discuss the case with the head of radiology in general terms because at one time we were looking for the x-rays and they were out of the hospital and we thought at that time they were lost and I told him that we'd better see about finding them. So those are the two people that I've discussed it with.

Q. That was Dr. Calvin Templeton?

A. That was after Dr. Templeton had gone. It was Dr. Lodwick.

Q. That must have been after the x-rays were introduced into evidence?

A. I think so but their records were deficient and they thought they had lost them for awhile.

Q. And the pathologist was Dr. Lucas?

A. No.

Q. Who was it?

A. It was Dr. Kerr.

Q. K-e-double-r?

A. Yes.

Q. Is he now in the pathology department?

A. He's head of anatomical pathology.

Q. And how long has he been head of anatomical pathology?

A. It would be a guess. Two years, perhaps.

Q. Do you recall whether he was head of that department when Mr. Weaver was in the hospital?

A. Again, it's just a recollection and I don't believe he was when Mr. Weaver was in the hospital but he may have been.

Q. Did the pathologist at that time, Dr. Kerr, that is, tell you that he had examined the slides by any chance?

A. No.

Q. Have you discussed it with Dr. Lucas?

A. No, I have not.

Q. Have you ever discussed it with Marjorie Weaver Thompson, the ex-wife of Lyle Weaver?

A. May have, but I don't recall.

Q. Or any of the plaintiffs in this case who are the

children of Lyle Weaver?

A. I may have met them during his hospitalization but to my knowledge, I haven't.

Q. Can you tell us what documents relating to Mr. Weaver you've examined, you've already stated that you've examined the hospital records....

A. (INTERRUPTING) Records.

Q. (CONTINUING).... and the x-rays.

A. And the x-rays.

Q. Are there any others?

A. I have looked at copies of the two hospitalizations in Clinton, Missouri at the Veteran's, I believe.... excuse me, Wetzel Osteopathic Hospital.

Q. Were they charts?

A. Charts.

Q. When did you first look at those?

A. I can't remember, but it wassometime within the last two months, I would think.

Q. I believe you also said you looked at some x-rays that were made at the Wetzel Clinic?

A. Yes.

Q. Was that at the same time?

A. I don't...I've seen those x-rays, but I don't recall if it was exactly at the same time.

Q. Could it have been since?

A. Yes.

Q. When was the last time you saw them?

A. The x-rays?

Q. From the Wetzel Clinic, yes?

A. This morning.

Q. How many were there?

A. I can't remember exactly, about five.

Q. Are they here in the office?

A. Yes.

Q. You've indicated some papers which appear to be charts, are those the Wetzel Clinic charts?

A. Yes, they are.

Q. May I see those, please? Off the record, these are the ones that have been put in evidence..... Doctor, you're more familiar with these than I am. Would you state when these two admission and discharge dates were at the Wetzel Clinic?

A. Well, the date on the chart showed the earliest one as an admission of February of1963.

Q. This is the first one?

A. That we have here, yes. And the second one is for.....

Q. (INTERRUPTING) Could you give me the discharge?

A. Oh, the discharge.....the admission date was February 3rd, 1963 and the discharge is listed here on

Dr. Wetzel's record as the 8th of February, 1963 and the date of admission for the later admission was given on the record here as 4-22-64. The date of discharge...

Q. Doctor, 4-22-64, he was admitted?

A. I don't know when he was admitted, but this is what .....

Q. (INTERRUPTING) I see, what is the discharge date?

A. The discharge date, I think, is probably incorrect here. In going over these, we've noted incompatability with our own record. I think the discharge date was 4-22-64, but according to this, is says 4-24-64.

Q. Can you tell from the record that he was in the Wetzel Clinic as much as two days?

A. It's difficult to tell from their record. They have the admission note as dated 4-21 in contrast to the one on the outside and it's difficult for me to tell for sure. I think the most reliable information probably is on the nurses note.

Q. Do you have that? Can I see the original? I wonder, Doctor, if the nurse's notes don't show that he went in on April 21st....

A. Yes.

Q. (CONTINUING) ... and left on the 22nd?

A. Yes, I would think those are probably correct. The problem of course, is that their admission note

there, the 23rd and 24th as signed, which are incompatible with our records. I think he left on the 22nd because this is the last time we have any of the nurse's charting done which is reasonably reliable in this hospital.

Q. Are there any nurse's notes? They say 4-24 also, don't they?

A. I think these are in error. I think there's no question judging from our record that he came to here the evening of the 22nd.

MR. MILLER: Off the record, Mr. James, one of the records of the Wetzel Clinic says he was dismissed on the afternoon of the 22nd to be transferred to the University Hospital.

MR. JAMES: George, do you have the x-rays from Wetzel?

MR. MILLER: Yes, do you want those now?

MR. JAMES: Yes.

Q. Now, Doctor, when I asked you if you had viewed the x-rays taken at the Wetzel Clinic, you told me you had and that they were negative?

A. I don't recall that I said they were negative.

MR. MILLER: He didn't say anything about them.

A. I said that I had looked at them, period.

Q. Could you find, again as you're better at chasing

these charts than I am, the x-ray reports in the Wetzel records?

A. From which admission?

Q. Either one, I don't know which time x-rays were made. I believe they were made on the first admission.

A. They were made the second admission, too.

Q. You're now looking for the reports from the first admission.....

A. All right, we have it.

Q. May I see it?

A. February, 1963.

MR. MILLER: I think, Mr. James, pardon my interruption, I think you might be helped, both of you, if you referred to the records themselves rather to my particular copy. We may be all fouled up later on because I'm not sure they're in the same order or anything at all when it comes to my copies.

Q. All right, we've got the original report here...

A. February of 1963....

Q. May I see it? Now, Doctor, could you find me the radiology report of the Wetzel Clinic for the second admission?

A. We shall try....

Q. Doctor, you have read the x-rays themselves that

were made at the Wetzel Clinic on the two admissions there, and you have read the radiology reports and the hospital records. Let me ask you this: do you agree with the conclusions reached by the radiologists' reports from those two admissions?

A. No.

Q. Will you state your own conclusions, please?

A. I think the conclusions I give on reading the x-rays, it should be stated are based on the fact that we had available films between these two taken at the University of Missouri Medical Center, so the reading of the first film is then based retrospectively and I have had the advantage of the film on the admission here.

Q. I understand.

A. In so doing, I think that I would not interpret this as peribronchial bronchitis, which I believe was the term used, and I think retrospectively, one might be able to see this mass lesion which was then evident on admissions films here in February of 1964. Similarly the film taken following radiation therapy, shows near to complete disappearance.

Q. That's the University of Missouri Medical Center film?

A. No, the film taken at the Wetzel Clinic, the last film, was following radiation therapy.

Q. I see, those reports called it bronchitis?

A. Yes, as did the earlier reports. And I did not agree with either one of these.

Q. Did you treat Mr. Weaver personally?

A. In radiation therapy?

Q. Well, at any times? Did you ever see him personally and treat him personally?

A. Yes, I did see him personally. I did not treat him, depending on how you define treat. I saw him on a number of occasions when he was in the hospital. I did not administer any drugs, nor did I order that any drugs be administered. It was on my recommendation that he was referred to radiation therapy for treatment, so perhaps you'd call this treatment.

Q. Did you perform the bronchoscopy?

A. I did not.

Q. Did you perform the biopsy?

A. I did not.

Q. Can you tell us how many times you saw Mr. Weaver, approximately and as near as you can, when you saw him on each occasion?

A. No, other than I saw him a number of times during that period when he was in the hospital.

Q. The first period?

A. Yes, the first period. I would be just going on

my past habitual rounding patterns say, and I could not definitely state an exact hour, or for that matter if I saw him on one day or not.

Q. But you think it was several times?

A. Several times.

Q. Do you recall if you saw him on the second occasion of admission?

A. I don't actually recall that.

Q. I understand you did not perform either the bronchoscopy or the biopsy nor administer or recommend any treatment other than the radiation therapy?

A. Well, I recommended the performance of the bronchoscopy and the performance of the scalene node biopsy.

Q. Aside from the recommendations and aside from going by and just seeing him in making your rounds...

A. (INTERRUPTING) And examining him.

Q. (CONTINUING)...and examining him personally when you made rounds and looking at his charts....

A. (INTERRUPTING) X-rays.

Q. (CONTINUING)...and x-rays, that's the extent of your.....of anything you did that could be termed management or treatment of this case, is that correct?

A. Reviewed the history, examining...physical examination, reviewed the x-rays, recommending diagnostic and therapeutic procedures, yes, that's the extent.

Q. And you can't tell us any more definitely than you have the number of times you actually went by his room and saw him personally?

A. No, I expect it was daily.

Q. And have you ever identified...strike that, please. Have you ever examined any other documents relating to Mr. Weaver than the ones you have mentioned, that is the records here at M.U. Medical Center, the two charts and the x-rays from the Wetzel Clinic?

A. The original of the charts from the Wetzel Clinic, slides we have here in our file, I don't recall any others.

Q. You personally examined some slides?

A. I did, yes.

Q. Incidentally, do you make your own conclusions, arrive at your own opinions as to what the slides show or do you rely upon the pathologists?

A. I look at the slides of most of our patients, but I rely primarily on the pathologists.

Q. Are you a certified pathologist?

A. No, indeed.

Q. Or a radiologist?

A. No, indeed.

Q. I take it you do have some, perhaps more than passing familiarity with slides?

A. Yes.

Q. We've covered all the x-rays that you've examined that related to Mr. Weaver, have we not? I don't mean by putting them up on the light and having you say what they show but you have not, at any time, looked at any x-rays, other than those taken here which have been referred to, taken here at the Medical Center and those supplied to you by Mr. Miller from the Wetzel Clinic?

A. That's true.

Q. Can you tell us when you looked at the slide in Weaver's case?

A. Yes.

Q. When?

A. This morning.

Q. Are they here?

A. In the office, now?

Q. Yes.

A. No.

Q. Do you know where they are?

A. Department of pathology, at least some slides are. The slides that were made originally were not immediately available, so we recut some slides from his tissue so I could look at them.

Q. What do you mean, recut some slides from his tissue?

A. Well, whenever anyone has an operation, the slides are made of the tissue, to identify both the organ and the disease under microscopic examination. The remainder of the tissue is kept and marked by the name and number of the patient for future reference.

Q. Could you get those for me?

A. I expect I could.

Q. Would you please do that? Off the record, since slides have been introduced in evidence, I want to make sure that we have....

MR. MILLER: We don't want any off the record.

MR. JAMES: Very well. We'll continue and come back later.

Q. Doctor, you have examined some slides that were made just in the last day or two from tissue specimens which resulted from the biopsy and the bronchoscopy you referred to previously, is that correct?

A. Yes.

Q. And when you examined those, you ....

A. (INTERRUPTING) Wait. I should correct that. I looked at the slides only of the scalene node, not from the bronchoscopy.

Q. Was another slide made from the bronchoscopy tissue?

A. No, not to my knowledge.

Q. And from looking at that, did you agree with the original pathologists report upon that specimen of tissue?

A. Again, I should emphasise that I am not a pathologist.

Q. I understand.

A. But it certainly seems that, to my eye, the microscopic appearance was entirely compatible with the printed report.

Q. Now aside from these hospital records and x-rays that you have examined, have you received any other, either written or oral information regarding Mr. Weaver?

A. I think I talked over with Mr. Miller who has given me some information.

Q. And could you tell us what information he's given you, first, whether it was just oral information?

A. Yes, verbal.

Q. He gave you no written documents or records?

A. Other than the Wetzel records?

Q. Other than the Wetzel records, very well, can you tell me the verbal information he gave you?

A. As I recall, I think he told me or reminded me of the fact that Mr. Weaver had been in a car accident, I think he told me this before we had the Wetzel records. Also he had been exposed in the course of his employ-

ment in various industrial activities.

Q. Could you be more specific about that?

A. Well, the fact is that most of these things were in that hypothetical question that seemed to cover it.

Q. Do you recall anything in addition to those included in the hypothetical question?

A. I can't recall any.

Q. Do you recall any that were in the question that were not included in the verbal information Mr. Miller gave you when he talked to you about the case?

A. No, again, this was just a verbal conversation some time ago and I would hesitate to rely on that correctly.

Q. Dr. Mackenzie, have you ever prepared any written report on this case, written your views, opinions, or conclusions?

A. Other than in the hospital records?

Q. Yes?

A. No.

Q. With reference to hospital records, have you ever prepared any written reports that are contained therein?

A. Not in the record that we see here. There was a problem of the hospitalization summary from his admission here in April of 1964, in that, for awhile, apparently the hospitalization summary, dictated by Dr. Simani was not available. He was a resident from

a foreign country, and is no longer available, so to keep our records up, I did apparently dictate a hospitalization summary, redictate it, and then apparently, the original dictated by Dr. Simani appeared, which I then signed as approved. I'd completely forgotten about redictating it except that Mr. Miller had in his file somewhere, this form that I dictated for the record, so I did prepare that.

Q. The one that appears in the chart that has been introduced as Plaintiff's Deposition Exhibit 1 and has been marked in pencil, page 59, is the one Dr. Simani ..

A. I assume so, that he dictated it, according to our records, he did. You see, it's not signed, and this apparently was the trouble. He left after dictating it,

Q But before it was signed, I see. But is the one that you dictated prior to finding the one he had dictated included in Plaintiff's Exhibit 1?.

A I don't see it here.

Q Do you have that, George?

A You have a copy of it somewhere?

MR. MILLER: What the Doctor is referring to, Mr. James, is one of the pages in Wetzel's report, apparently a copy of Dr. Mackenzie's dictation in his own report showed up in Wetzel's report.

A. There's another one that Mr. Miller has a copy of. We went over these things.

Q. Now, Doctor, as I understand you, the summary sheetin the University of Missouri Center's chart, that is Plaintiff's Deposition Exhibit 1, which was dictated on the 5th of May, 1964 is one that was prepared by Dr. Simani who was then resident physician, but who left thereafter for some other county, and is signed... approved by you?

A. Yes.

Q. Over your signature?

A. Right.

Q. But prior to the time you signed that summary just referred to, you had prepared one yourself, thinking erroneously that Dr.....you dictated one yourself, thinking that Dr. Simani had not yet dictated one before he left, is that right?

A. No, it was afterwards. You see, this was dictated in November of 1964. This was, I think quite obviously, picked up in a medical records check, telling us that their medical records were incomplete, and Isuspect, but I don't know for sure, that this was in an answer to a request from them that we do something to complete the records.

Q. But you did prepare a summary yourself?

A. Yes.

Q. Then on November 10th, 1964, based upon the records in the chart....

A. Yes.

Q. And then that was apparently removed from the chart because they found the one that had been prepared by Dr. Simani?

A. I assume this is so, but I have no way of knowing.

(REPORTER MARKED DEFENDANT'S DEPOSITION EXHIBIT MAY 28, 1969, NUMBER 1)

MR. MILLER: And you can do this if you want to, Mr. James, show that by agreement it or a copy of it is now inserted and made a part of the University Hospital Record.

MR. JAMES: Don't you think that this record here that I'm making will satisfy our purposes?

MR. MILLER: I suspect so. It's perfectly agreeable with me.

Q. Doctor Mackenzie, I'll hand you what the reporter has marked for identification as Defendant's Deposition Exhibit No. 1 and ask you if this is a summary that was prepared by you in November of 1964 but then was replaced in the official chart by the summary that was made by Dr. Simani on May 5th, 1964 and approved by

you?

A. Certainly this was dictated by me. Whether it was actually in the chart or not, I have no way of knowing except that it was contained when the chart was duplicated.

Q. And when you dictated that summary, you of course, were setting up a summary of your findings and conclusions based upon the hospitalization of from February 7th, 1964 to February.....

A. No, this was the April admission.

Q. Oh, this was the April admission?

A. The April admission.

Q. Yes, from April 22nd, 1964 to April 25th, 1964?

A. Yes.

Q. And that summary was based upon the hospital chart relating to that admission?

A. Yes, because you see, we know that this was dictated some five months later.

MR. JAMES: We offer into evidence Defendant's Deposition Exhibit 1.

MR. MILLER: For the purpose of the record, let it show that there are certain markings and underlinings on this record on this exhibit that were made by Mr. Miller because the exhibit itself has been the property of Mr. Miller for some time.

I have no objection for the admission of the exhibit and I would like to tell Mr. James that with his permission, I will keep this exhibit and will give him another one, replace it with another just like it but without the markings. If he prefers he can keep this one.

Q. Doctor, I'm going to....put the number 18 in pencil in the upper right hand corner of the summary sheet, from Plaintiff's Exhibit 1 to designate the summary pertaining to the first hospitalization of Mr. Weaver, is that correct?

A. Yes.

Q. I'm putting the 18 on it whether that's the correct number or not. Now, to respond to Mr. Miller... off the record....

Q. Doctor, you're not a chemist, are you?

A. No.

Q. I take it you've had some courses in that?

A. Yes, sir.

Q. Are you an epidemiologist?

A. No.

Q. Or a statitician?

A. No.

Q. In the event you have some question as to the respect of the type of cancer in a patient of yours,

do you refer that to a pathologist?

A Well, I'm interested in his opinion of any tissue that we

have but I a[illegible] am interest[illegible]n the physical examination and th[illegible]indings at op[illegible]tions if any. Occasionally it's ne[illegible]sary to put all [illegible]se together to make sure.

Q. But you invariably will get a pathologists opinion if there's some tissue available?

A. Yes.

Q. Is classification of cancer by type a function of the surgeon or the pathologist?

A. What do you mean by type?

Q. Well, are there different types of cancer?

A. Yes, one of the different ways one can classify is by histologic types, perhaps this is what you mean.

Q. All right, what are histologic types?

A. These are types of appearance under the microscope of cancer and this is the most common way of typing it. But there are also other ways of classifying the type of cancer depending on the clinical situation.

Q. Well, as to histologic types, classifying them as to type under a microscope, do you get the opinions of pathologists.....

A. Yes, indeed.

Q. with regard to that? Do you do that?

A. I take it invariably if we can get the tissue, yes. I can't think of any exceptions.

Q. And is that the ....one of the jobs in the hospital, to classify tissue as to histologic type and make and report?

A. Yes.

Q. Mr. Miller asked you the number of lung cancer patients you've had since you've been here at the University of Missouri Medical Center, I believe and you said it was about three hundred and fifty in the hospital?

A. In the hospital in the last six years. I've been here almost seven years. But our records were easily available for the last six years.

Q. Did you refer to these records?

A. Yes.

Q. And make an actual count?

A. Yes.

Q. Was it actually 350?

A. No, it was in excess of that.

Q. Can you tell me how much?

A. No, because we stopped when we.....

Q. Less than 400?

A. Yes, I would ....it was between 350 and 400 admitted to our service in the last six years.

Q. Now, did you treat these personally and I take it by that, it would include the same type of management that

you....

A. Of course, some of those I did....

Q. Did with regard to the Weaver case?

A. Some of those I actually did the procedures on, the bronchoscopy, the scalene node biopsy and the thoracotomy .

Q. Do you have any estimate you could give us as to the number of thoracotomies you've performed on lung cancer patients in the last six years?

A. It would be a bit of a guess, but perhaps about 30 percent of them.

Q. Around a hundred?

A. Again, I do not have acurate figures.

Q. What about bronchoscopies; how many would you estimate you had performed among those 350 plus patients?

A. Again, I did not search for those figures, it would be just purely an estimate. Perhaps about the same number because we do bronchoscopies on a number of those that don't....

Q. What about biopsys;(sic) would you say the same?

A. About that I would say.

Q. You mentioned some other sorts of lung cancer patients you've had here. I think some you saw on consultation?

A. Yes.

Q. Do you know what those would total? 1148

A No.

Q In the last six years?

A I do not have those figures.

Q Is there another kind of cancer patient?

A There would have some that would have been seen as outpatients. They were obviously not candidates for an operation so they may not have been admitted to the hospital. There would be few of those.

Q As to the 850 plus, can you give us any estimate as to the number of those who were men and how many were women?

A I cannot.

Q Have you any record as to the number of cases that involved persons who smoke as opposed to non-smokers?

A To give an estimate, in that, I think almost without fail, we do take a smoking history with all of our patients.

Q Well, I'm not asking for an estimate. Do you have any count?

A No, we do not have a count.

Q Do you have any record or have you made any count in the last few days of the types of cancer included in those 850 plus?

A No.

Q Would you say it would include all types and there

again, maybe I'd better say histologic types?

A. I would think so, yes.

Q. Do you have any records as to the numbers.... the number of those that would be primary as opposed to secondary?

A. We have not done this, just a survey of our material, this is available.

Q. Is it in the record?

A. Yes, individually it would be and we could get each record out if it were important enough but I have not done this.

Q. Is that the only way you could get that count, or have some other statistical organization or something... someone here at the hospital make an actual count as to the number of those lung cancer patients which were primary and the number which were secondary?

A. There is a tumor registery here.

Q. Would that show that?

A. It might very well.

Q. Do you know whether or not it classifies them as to primary or secondary?

A. To my knowledge, it does but I'm not sure.

Q. It classifies them as to histologic type, I take it?

A. Yes.

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Q. And certainly it would classify them as to men or women?

A. Yes.

Q. It would classify them as to age?

A. Yes.

Q. And as to residence?

A. Yes, I think so.

Q. Are most of your patients here Missouri residents or do they come from far and wide?

A. Most are from Missouri.

Q. That, I believe covers the cases you've had in this department of which you've been a member here in Missouri. Can you tell me about how many lung cancer patients you have treated personally prior to coming to Missouri and since you're, I suppose, determination of your residency in general surgery?

A. No, it would be only a guess.

Q. Could you give me an educated estimate?

A. I suppose a hundred.

Q. Is there any way you can find out exactly; any records other than going, I suppose, back to Michigan and taking out the charts?

A. Those are to ten years ago and I'm not so sure I've still kept my own personal operative records of those.

Q. Is there any organization which gathers statistics

from which you could get that?

A Only the cancer registry back there.

Q They had a tumor registry at the Michigan University Medical School?

A Yes.

Q Would they be classified according to the treating doctor?

A I'm not sure.

Q Do you think they would be classified as to the histologic type of cancer?

A Yes.

Q Male or female, age?

A This is the usual things in cancer registries, and I assume so.

Q Who operates the cancer registry here; the name of the person?

A Dr. DeNoose I think is chairman of the committee in charge of the ***tumor registry, Dr. Carl Rinker is actually in charge.

Q Is this tumor registry something maintained by M.U. Medical Center?

A Yes.

Q Or is it maintained by the State Health Department or the Federal Government?

A It's maintained by the Medical Center.

Q. Do you know whether they report to the State Department of Health or to any Federal Agencies?

A. I'm quite sure they don't report to Federal Agencies. I think there's a beginning cooperative tumor registry within the State.

Q. I take it, Doctor, those hundred approximately, that you saw during your residency in thoracic surgery and thereafter were before coming to Missouri....

Q. You could not divide those as to exact type?

A. No.

Q. Smokers or non-smokers, or age?

A. No.

Q. Are you able to tell us how many of these 350 plus patients you've had here at M.U. Medical Center, were spindle cell type?

A. No.

Q. You would have no estimate?

A. No, we've not made a study.

Q. Do you know whether the tumor registry would classify them sufficiently that that could be determined?

A. I don't know.

Q. Can you tell me how many cases you've treated personally among those 350 plus were spindle cell cases?

A. No, because I don't know personally how many that I've actually.....

Q. I see. Then your answer would be the same as to how many of those were females?

A. Yes.

Q. Now this 350 plus here at Missouri Med Center includes cases which you've treated personally and cases which you've managed or your associates have treated?

A. Yes, or residents have treated under my supervision.

Q. Are you able to tell me how many cases you have either treated or ...either treated or seen in consultation which were undifferientated spindle cell?

A. No, again we do not have histologic classification.

Q. Have you ever checked your records to determine the various classifications as to type, sex, age, smoker, non-smoker, and so on in cases you have treated or consulted with?

A. No.

Q. Doctor, do you have any reason to believe there is any difference in the amount of smoking in Michigan as compared to Missouri?

A. No.

Q. A difference either way?

A. No.

Q. Just have no knowledge?

A. No. knowledge.

Q. Of the lung cancers you've seen and let me confine

this to the ones here at N.U. Med Center in the last six years, of those do you have any basis for knowing how many were primary bronchogenic carcinomas?

A Nor for....no, as again we have not done any statistical survey of our lung cancer patients.

Q You say not from knowing, is there some other way?

A Well, you can have a general impression and my impression would be that our experience is that we have at least 20 or 30 primary lesions of the lungs to each metastastic lesions that we see.

Q Doctor, would you please define cancer for me?

A Cancer is an abnormal growth taking place within a biologic system which has propensities for uncontrolled growth and detachment and setting up satellites and metastases.

Q Can you define primary and secondary cancer; could you distinguish them?

A Primary cancer of any organ is a cancer that originates there. Secondary cancer is one which originates elsewhere and then spreads or metastasizes to this organ in question.

Q That brings us to the term metastasis.

A Yes.

What is your definition of this?

A Metastasis is a breaking off of a portion of the can-

cer which then spreads either through the lymphatic system or through the vascular system to then light elsewhere and set up secondary growth.

Q. Is it correct to say that where you have secondary lung cancer, that means that the cancer has originated in some other part of the body and has moved and metastasized to the secondary site?

A. I think you can get involved in semantics a little bit, but generally speaking, secondary cancer, I think, would mean this, yes.

Q. What is it that metastasizes it, is it some of the cells?

A. Some of the cells.

Q. Could it be one or more?

A. Probably more than one. I think there's a minimum number or group of cells necessary.

Q. Could you define etiology for us?

A. Etiology is the basic cause of any disease, whether it be cancer or infectious diseases.

Q. Doctor, you would not diagnose lung cancer, would you, on the sole basis of a smoking history?

A. No, indeed.

Q. As a matter of fact, it is true, is it not, Doctor, the vast majority of smokers never get lung cancer?

A. That's true.

Q And it is also true, is it not, Doctor, that non-smokers do get lung cancer?

A I think you'd have to equivocate there. I think it's extremely rare for non-smokers to get undifferentiated carcinoma (sic). So rare that we always comment about it, if we should see such a case.

Q Although it's rare, it is true, is it not, Doctor, that non-smokers do get lung cancer?

A Yes, indeed.

Q It is also true, isn't it, Doctor, that cancer cells seen under a microscope do not look any different in a smoker.....from a smoker than they do from a non-smoker?

A That's true.

Q So, obviously then, one cannot tell simply by looking at the cancer cells under the microscope whether they came from a person who smoked or a person who had never smoked?

A That's true.

Q Doctor, do you know whether there was an autopsy report of this case?

A To my knowledge, there was not.

Q There was none that you saw?

A Yes.

Q And in the examination of the records that you have related here, you have seen none?

A. No.

Q. Doctor, returning to the summary sheet relating to the first stay of Mr. Weaver in the hospital here at the Medical Center, which was the stay from February 7th, 1964 to February 21st, 1964, I'll ask you if that summary sheet does not state that the patient had a left hilar mass of unknown origin?

A. Yes, the report of the x-ray report says that, yes.

Q. Now this summary was designed to summarize what was found, what was actually found, was it not?

A. Yes.

Q. And it was prepared on February 25th, 1964 which would have been 4 days after Mr. Weaver left the hospital, is that correct?

A. By the record, it is correct.

Q. Would you please define sputum cytology?

A. Sputum cytology is a way in which one can attempt to make a diagonis of bronchogenic carcinoma by looking at the sputum and the cells within the sputum and if they're coughed up from the inner portions of the lung and if they actually appear abnormal, one can make a diagnosis of carcinoma of the lung by looking at these tests.

Q. Doctor, I believe I quoted from the summary inaccurately. The summary states that the x-ray showed a left

hilar mass of unknown etiology did it not?

A. Probably carcinoma.

Q. It adds probably carcinoma?

A. Yes.

Q. And I think I said unknown origin?

A. Yes.

Q. The record says unknown etiology.

A. Yes.

Q. So that would be, mean an unknown cause?

A. Again that's the transcription of the report of the radiologist. I assume the report of the radiology department.

Q. Could you find for me the report of the radiology department?

A. Yes, we have it here.

Q. Doctor, the radiology report you're referring to, which the summary you say was a transcription of it?

A. I said I assumed it was.

Q. You assumed it was a transcription of was the one dated ....the one relating to chest x-rays made on February 2nd, 1964 and there's no date showing when the report was made?

A. No, I think I would say...I'm not sure that date is even correct, to tell you the truth.

Q. The date of the x-ray?

A. The date of the report of the x-ray, because you remember we had a film of the 7th of February, and that... according to that says the 2nd, does it not?

Q. Yes, he wasn't even here.

A. He wasn't here so I assume that was a typographical error.

Q. Is there any way by identification number or other way to tell which x-rays this report is talking about and states chest, February 2nd, 1964?

A. My only supposition would be that there are no other chest films about that time and there is not a report as I recall, on the one of the 7th. This in actuality represents a typographical error.and this is by the fact again, that he was not here at that time and it's pretty strong circumstantial evidence.

Q. And I don't mean to quarrel with you, Dr. Mackenzie, but when you said you assumed that the summary statement about a hilar mass of unknown etiology was simply a transcription of the radiologists report, you assumed incorrectly, did you not?

A. Yes.

Q. Now that you've looked at the report?

A. It is not a verbatum transcript and I should say that oftentimes in these hospitalization summaries, they are not verbatum transcriptions.

Q. As a matter of fact, the purpose of the summary, Doctor, is it not, the purpose of the summary is to summarize the case on the basis of all the records and history and examinations we have?

A. Correct.

Q. And not just to repeat all of the record verbatum?

A. Yes.

Q. Now the radiology report we've referred to as Plaintiff's Exhibit 1 relating to the chest x-ray, noted as having been made February 2nd, 1984 which was probably a typographical error and means the x-ray made on February 7, 1984, states after the word data: probable carcinoma(sic) of the left lung and multiple bone changes?

A. Yes, I see that.

Q. I want to ask you to follow me and see if I'm reading this correctly. And then it goes on down and says: there is a left hilar mass appearing just inferior to the upper lateral border of the aortic knob. This mass is posterior to the pulmonary vessels and left trachea but lie just superior to the left main steam(sic) bronchus. The exact etiology of this mass is not apparent from these films and overpenetrated films of the chest and chest fluoroscopy was recommended.

A. Yes.

Q. And then "Impression: left hilar mass, etiology

unidetermined. Possible carcinoma(sic.) Can you tell us from your review of these records whether there was any overpenetrated films of the chest and chest fluoroscopy?

A. There was a chest fluoroscopy done sometimes. I don't know if it was in this hospitalization or later. I recall seeing the report of a chest fluoroscopy in this case.

Q. I see what seems to be an order.

A. I think you'll see it there in....

Q. That was made on February 14th, 1964 and signed by Dr. Stephens, do you know who he was?

A. I do.

Q. Is he a radiologist?

A. He is a radiologist.

Q. Is he a resident or a....

A. I think he was a resident at that time, yes. But it's countersigned or has a....

Q. What is the S.W.?

A. Either the S.W. is the one who did the typing and this is the staff man or vice versa. I'm not sure.

Q. And all that says is that on February 14th, 1964, the fluoroscopic examination showed that the left diaphram was noted to move well without evidence of paralysis.

A. Correct.

Q. Were there sputum cytology tests made.

A. Yes, there were.

Q. Could you find those, please?

A. Here.

Q. Would you check those and tell us whether or not those reports showed that there were no atypical or abnormal cells seen?

A. That's what the report says.

Q. That is...strike that. Would you tell us how you go about making sputum cytology?

A. Well, of course, this isn't one of the things that I do. This is done in the department of pathology. The sputum is collected and sent down, and the pathologist, after the sputum which contains cells from the lining of the lungs is prepared properly, looks at the cells. I do not do this. What we do, is we arrange to send fresh specimens down to be looked by the people in pathology.

Q. Are those specimens material that is coughed up by the patient?

A. Coughed up and sputum, yes.

Q. Are those examined under a microscope?

A. They are examined under a microscope.

Q. Do you examine them yourself?

A. Rarely do I examine cytologic specimens.

Q. You rely upon the pathologists...

A Yes.

Q ...conclusions?

A Yes, from his inspection.

Q What is the purpose of that?

A Again, it's an attempt to obtain the diagnosis of a cytologic diagnosis of diseases in the lung and usually cancer.

Q And one purpose is to see if you can find some cancer cells in the sputum?

A Yes.

Q How many tests were there?

A One was...

Q No cancer cells were found?

A That's true...in the cytologic examination.

Q How many tests were made?

A There were five, four of which apparently were accurate or adequate, one was inadequate.

Q The record shows a bronchoscopy was performed and you've mentioned that. Would you describe or would you define bronchoscopy?

A Bronchoscopy is the insertion of a lighted tube into the major air passages into the trachea and the bronchi through which one can see the lining of these air passages.

Q Would you check the bronchoscopy report and tell us

how many there are?

A. How many times bronchoscopy was done?

Q. Yes?

A. I think just once, is the only place on the record.

Q. I think that's correct. Did you find that report, Doctor?

A. Yes.

Q. Do you have it?

A. Yes.

Q. I'll ask you if that isn't correct that the bronchoscopy report showed that everything was normal except that the carina was, and I quote, "slightly thick," end quote?

A. Yes.

Q. What is the carina, Doctor?

A. The carina is the spur at the division of the trachea, the main air passage, as it divides into the right and left bronchi.

Q. It's not a part of the lung or is it?

A. No, I would say not, strictly speaking.

Q. Was the carina biopsied?

A. Yes.

Q. I think you said it was.

A. Yes, it was.

Q. Could you tell us what that means?

A It means a piece of tissue was taken and treated and stained and looked at under the microscope.

Q How was it taken?

A With a forcep which was a sharp edge on it and it's cut. So it's cut sharply so we do not damage the tissue as it's taken to be submitted to microscopic examination.

Q Was there a report of the biopsy?

A Yes.

Q And is it true that there was no cancer found in the carina and none ever developed?

A That's true.

Q I take it you agree, Doctor, that one cannot tell by looking at a man's lung whether the man is a smoker or not?

A Yes, it's generally true that one cannot be sure.

Q Was there another biopsy performed?

A Yes.

Q Where was that tissue taken?

A This was taken from the left side of the neck.

Q What was the name of the kind of tissue?

A This was a lymph node biopsy, so called scalene biopsy.

Q Does this word scalene have some significance aside from lymph node?

A Well, there are muscles there that are called the scalene muscles. It has significance because it is often the first place that a malignant disease from the lung lights when it metastasizes from the lung.

Q Does it also have significance in that it tells you where that lymph node was?

A The area?

Q Yes?

A Yes.

Q And describe that area, by pointing to your body or my body?

A Well, the scalene triangle is a triangle to the interior portion of the anterior part of the neck. It's deep structure, the anterior scalene muscle, is what gives it it's name. There are significant anatomical structures there, the interior jugular vein medial, subclavian vein below it and omohyoid muscles laterally.

Q For my information, can you point, as nearly as you can?

A Yes, it's in the supra-clavicular region, above the clavical, closer to the mid line of where you're pointing.....no, closer to the front....

Q On the left side?

A Well, there's the left one and the right.

Q I mean, this particular one on the left?

A Yes.

Q I believe you said something about this being a lymph node to which lung cancer can or often metastasizes. It is true that cancer cells can metastasize to this lymph node from other primary sites, is it not?

A Yes, it's true.

Q This scalene node from which the biopsy was done was not a part of the lung?

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A No, it was not.

Q It's outside the lung?

A Outside.

Q And these questions might sound facetious to you but actually these are to help me and Mr.Miller and the Court and jury. Can you tell me about how far, in inches, if you will, or fractions of an inch this would be from the hilar mass that you mentioned?

A Be close, perhaps two or three inches.

Q From the hilar mass?

A Yes, it would be within three inches.

Q And how far from the nearest part of the lung itself?

A Very close.....less than an inch.

Q Did you find a report of the scalene node biopsy?

A I have it.

Q Now that showed undifferentiated spindle cell cancer, did it not?

A Yes. and that's not the verbatum report but in essence, that's what this was.

Q It means the same thing?

A Yes.

Q And this finding was made on February 13th, 1964, was it not?

A That's the date on the report of the examination.

Q Could this undifferentiated spindle cell cancer have originated in that node?

A Highly unlikely.

Q I understand, but Doctor, my question was, could it possibly have originated in that node?

A Yes.

Q And if it had originated in that lode it would be, what we referred to a moment ago as primary cancer?

A Yes.

Q And if it were primary cancer in that node, that would mean that it had not come from the lung?

A Yes.

Q Doctor, the pathology.....the pathological report in this case and the surgery did not establish where this undifferientated spindle cell cancer came from, that's correct, isn't it?

A Repeat the question?

MR. JAMES: Would you please read that back?

MR. REPORTER: "Now, Doctor, the pathology, that was the pathological report in this case and the surgery did not establish where this undifferientated spindle cell cancer came from, that's correct, isn't it?"

A Again, here is a little bit on semantics. You're talking about the operation itself, per se, just the

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operation, I would agree, but if by surgery you mean, as most of do, the taking care of patients by surgeons in a large sense, I would disagree.

Q I'm talking about the surgery that was performed....

A (INTERRUPTING) The operation that was performed?

Q (CONTINUING)... for the purpose of getting pathological opinions as to what the tissue was and those pathological opinions.....

A (INTERRUPTING) For so did not establish.....

Q (CONTINUING)....examinations and reports by the pathologists did not establish where this undifferentiated spindle cell cancer originated. That's correct, is it not?

A Yes, except that report does state by the pathologist even, that the most likely origin was in the lung.

Q But your answer to that question is yes?

A Yes, that's right.

Q Now the x-ray showed only a hilar mass of unknown etiology, did it not?

A Yes, that's right.

Q In fairness, they added probably.....

A Carcinoma.

Q Carcinoma, probably so. So the x-ray did not establish where any cancer came from?

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A Not per se.

Q In fact, the x-ray does not even show whether this hilar mass was a cancer?

A That's true.

Q Now the record indicates, Doctor, that this undifferentiated spindle cell cancer may have been a sarcoma, isn't that correct?

A I don't believe the record indicates that.

Q I think there's some.....some statement that..... what I had reference to, Doctor, is this sheet of the record, headed University of Missouri Medical Center, Surgery. Is that a continueship of another record?

A Yes.

Q So we won't have to count this. I was referring to that on the back that says "scalene node, BX", is that biopsy?

A Biopsy.

Q "Spindle cell neoplasm, probably carcinoma as opposed to sarcoma" Would that indicate that this reporter thought it was probably carcinoma but might possibly by sarcoma?

A Since you pointed out.....

Q First, can you answer my question, Doctor, then you're entitled to make any explanation.....

MR. MILLER: If the Court please, the

Attorney is calling for the doctor's conclusion or his opinion as to the semantics used and I think the doctor cannot answer yes or no and he must explain what he thinks rather than answering yes or no.

Q Well, Doctor, did this mean to you that the reporter or the doctor making this statement thought that this undifferentiated spindle cell neoplasm was probably carcinoma but might possibly have been sarcoma?

A It's hard for me to tell what he was considering. Again I'll have to say this is an entry by a medical student, not a physician and it's not countersigned by a physician so I couldn't put to much credence in it.

Q Very well, but aside from how much credence you would put in it, in fact, let's assume this was made by the finest doctor at the medical center, would this not mean that this doctor thought it was probably carcinoma but might possibly be sarcoma?

A Again, trying to interpret what someone else said, I think this would be a reasonable interpretation, but I wouldn't....

Q And Doctor, wouldn't that be borne out, that interpretation, by the fact that the doctor used the word "neoplasm" which would include both carcinoma and sarcoma?

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A Neoplasm was probably used there because, was that not used in the report?

Q I don't recall.

A Neoplasm includes both carcinoma and sarcoma, its true, but I doubt very much that a medical student was thinking along those lines.

Q But suppose he were the finest surgeon in the world, wouldn't it be fair to say that he thought, that he didn't intend to say this was anything more than a neoplasm except to say that it was probably carcinoma but it might be sarcoma?

A Yes, I think that would be a reasonable interpretation of that entry.

Q Now, Doctor, if this were sarcoma, it did not come from the lung, did it?

A Well, that's not quite a true statement. Sarcomas may originate in the lung.

Q Is that correct?

A Yes, it is correct. Rare, but definite.

Q And do you have some basis upon which you make that statement?

A Just from reading.

Q Reading text material, literature, can you give me any citations for some?

A Not offhand but I'm sure I could.

LS

Q Have you, yourself, performed autopsys where you saw sarcoma in the lung?

A No, I never have.

Q What part of the lung would sarcoma originate in?

A Obviously it would have to originate in the lung, somewhere other than where there is epithelial lining, but there is fibrous tissue within the lung and this gives rise to neoplasms that take the form of a sarcoma.

Q Can you give us the name of any medical scientist who has written reports of finding sarcoma that originate in the lung?

A No, I can't offhand but I know this has been reported.

Q Of course when you speak of the causal relationship between smoking and lungcancer, you're confining that to primary lung cancer only?

A Yes.

Q You are not saying that cancer that originates in some other organ and metastasizes to the lung is caused by smoking, you're not saying that?

A No, I'm not saying that.

Q Is it not correct, Doctor, that the lung is one of the organs of the body that is particularly susceptible to the metastatic or secondary lung cancer?

A Yes.

Q And that's true, at least in part, because these

cells can travel through the bloodstream and all blood goes through the lung at one time or another, is that correct?

A Almost, not completely.

Q Not quite right?

A For instance, the cancer from the abdominal cavity can----may get filtered out in the liver.

Q You don't claim to know the cause of cancer that originates in some part of the body other than the lung and which reaches the lung through metastasizes or through the blood supply?

A Well, I know the cause of some cancers that may do this, yes.

Q What cancers?

A One, specifically, I think, are people who have an ulceration on the leg over a long period of years, which doesn't heal, is chronically irritated, may develop cancer. And some of these stay localized, but some of them do metastasize.

Q Are there others?

A This is one that comes to mind offhand.

Q Then irritation over a long period of time, in your opinion, can cause cancer in certain areas?

A I think this is true.

Q How about trauma, repeated trauma. That's the same

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as repeated irritation, isn't it, continued irritation over a long period of time?

A Depending on the form of the trauma, what kind it was.

Q Now when you speak of the relationship between smoking and primary lung cancer, you don't mean to include all types, all histologic types of lung cancer, do you?

A I mean to emphasize primarily, the undifferentiated and the squamous cell and I also think there is beginning evidence that even the adenocarcinoma which previously has been thought to have no relation to smoking may indeed have. I'm talking primarily about the undifferentiated carcinoma and the squamous cell.

Q And as to that, you are beginning to think it may have?

A Referring to adenominal carcinoma.

Q Yes, what about alveolar?

A Again one may look on this as a type of adenominal carcinoma, some type of it, so I.....

Q What about spindle cell?

A Well, spindle cell, of course, is used by many people as....in the group of the oat cell or undifferentiated carcinoma. There are so many different classifications, I think this is definitely where it fits, I think it definitely [illegible]

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Q Could you read me that last answer?

MR. REPORTER: Yes, you said "What about spindle cell?" He said, "Well, spindle cell of course, is used by many people in the group of the cat cell or undifferentiated carcinoma. There are so many different classifications, I think this is definitely where this fits. I think it definitely was."

Q Doctor Mackenzie, you're anxious to get away and I think we can probably shorten this and finish very soon. If spindle cell cancer is just undifferentiated, why do the pathologists say undifferentiated spindle cell?

A This is a more philogic description, a description of how it appears. It looks, in certain planes under the microscope that there are spindles, elongated cells. This is a type of undifferentiated carcinoma.

Q Doctor, you've agreed that non-smokers do get primary cancer of the lung?

A Yes.

Q What would you say is the cause of lung cancer in a non-smoker, since smoking is ruled out?

A Because it's so infrequent, I don't have much experience with it, nor have I read enough about the reported cases to give an opinion about it. There are certain groups of people we all know, who may get

bronchus of the lung who are not smokers and these are people with exposure to radioactive metals, arsenic, perhaps over a long period of time, perhaps various industrial factories. There are certain groups of whom we can make a reasonable supposition. Many of them, however, we don't.

Q But is it fair to say that you don't know the cause of lung cancer in non-smokers?

A We do in some of them, I think. In some of them we don't know.

Q Isn't it entirely possible that that causes lung cancer in a non-smoker is the same thing that causes it in a smoker?

A Yes, I think it is possible.

Q And you can't rule out the fact, can you, that that causes lung cancer in a non-smoker may have caused it in Weaver?

A I think that's true.

Q Would you not agree that the medical profession and men of science do not yet really know the basic cause of cancer?

A I'm not sure that's true for all cancers, again, the example I gave before of the cancer that develops at a chronic burn scar. We may not know the exact intra-cellular changes going on nor the changes at the

biochemical level, but certainly we do know in those circumstances that causes cancer there, and I think we do with cancer of the lung.

Q Well, does the cause include the basic mechanism, the etiology of the disease include the basic mechanism by which it's caused?

A The answer I think I would have to expand on, I don't think it's that simple. For example, we know in general terms that the tubercle bacillus causes pulmonary tuberculosis. We don't know precisely the cellular mechanisms by which it causes pulmonary tuberculosis. Not everybody accepts that the tubercle bacillus will cause pulmonary tuberculosis in susceptible people.

Q Doctor, you are aware, are you not, that millions of dollars are being spent on research at the present time and they have been in the past?

A Yes.

Q To determine the cause of lung cancer.

A Yes.

Q And of course, all that money wouldn't be spent and all that effort wouldn't be made if we knew.... if men of science knew the cause of lung cancer, isn't that correct?

A Not supposedly.

Q Doctor, you mentioned about having that tubercle-

is not caused by this particular type of bacillus?

A Yes.

Q In every case of TB, that bacillus is present, isn't it?

A We assume it is. It has not been isolated and grown in some cases, admittedly rare, where there is evidence of tuberculosis.

Q The bacillus is the cause?

A We generally accept that it is but to amplify this question you're getting at, is do we know the precise intra-cellular observations or changes? We don't know even though it is quite definitely assumed to be caused by the tubercle bacillus. And I think the analogy holds true of cancer.

Q Well, Doctor, if some man discovers the basic cause of cancer, wouldn't you agree that it is going to make headlines all over the country?

A Yes.

Q And that he'll probably get a Nobel Prize?

A I would hope so.

Q Then wouldn't you agree that the basic cause of lung cancer hasn't yet been found?

A I think the basic cause, if you mean at the level that we're considering today is making of chemicals. It does not mean that it's the basic

cause in terms of intra-cellular change. From my own study, I think that the basic cause is the chronic irritation from the inhalation of smoke from cigarettes over a long period of time.

Q But you would not say that the etiology of cancer has now been discovered by me....

A No, indeed.

Q Doctor MacKenzie?

A No, indeed.

Q You mentioned some other suspected causes of lung cancer?

A Several others.

Q One of the suspected causes is genetic or hereditary factors, is that not correct?

A In terms of lung cancer?

A Yes?

A Not to my knowledge. There are certain families, certainly there there appears to be more cancer than should be their lot, but I think that's about as far as I'd be willing to accept.

Q I'm not talking about what you would accept, Doctor...

A Or what is accepted.

Q I'm talking about that men in medical science suspect as possible causes of lung cancer.

Knowledge you include?

Q. Isn't one of the things suspected a genetic factor or an inherited factor?

A. Perhaps an inherited predisposition but that's as far as I would accept, no further.

Q. Do you know how many of Mr. Weaver's relatives, forebearers, I mean, died from cancer?

A. I knew there was at least one. His history was reviewed here earlier. Offhand I wouldn't.

Q. Were you ever advised how many of his forebearers died with cancer or with some form of lung disease?

A. Perhaps I was, but I only recall one other.

Q. You were never advised that there were somewhere around a dozen, give or take one or two maybe?

A. I've completely forgotten it if I ever was.

Q. There are other theories than any genetic theory regarding possible cause or causes of lung cancer, aren't they?

A. Yes.

Q. One of those is a virus, is that not correct?

A. There has been speculation, yes, of viruses.

Q. And one is air pollution?

A. Yes.

Q. And one suspected factor is hormonal or endocrine factor?

A. I think this is bound to be a large subset in cancer

Q There about 90 percent of all cancers are lung cancers, is that correct?

A Perhaps that's a true figure. I haven't recalculated it, but a high incidence, this is true. But there are other workers, you know, who have a high incidence of lung cancer, too, besides those.

Q Such as working around asbestos?

A Asbestos, yes, other kinds of metal workers, I think some metal workers, perhaps.

Q Workers that are inhaling gasoline fumes?

A I'm not sure, this may be so.

Q You feel that may be so?

A May be so.

MR. JAMES: That's all, Doctor. Thank you. Do you have anything that we can use to identify this? Don't you remember now that you took these other depositions for us and we had a terrible time getting these marked properly.

DR. MACKINNON: I'm not so sure I can identify that as, because you know, that's a pathology code.

MR. JAMES: Could a pathologist look at it and tell that this is a likely slide? Can't you tell us whether this is the one

of the lung on the difference between cores and the respective incidences. This, I think is under some suspicion. I'm quite sure of this.

Q Well, none of these are medical science...none of these is medical science sure of, isn't that correct?

A None of which ones?

Q Any of them that have been suspected of causes of lung cancer?

A No, that's not true. There are certain causes that are very well accepted and you've mentioned some of those that I think everyone would accept. These are some of the miners in certain districts of Central Europe have a very high incidence of cancer and you could well accept that their exposure there has the basic etiology involved in their exposure to this, so it's not true that we're totally unaware of causes of lung cancer.

Q You're referring to the Schneiburg miners in Czechoslovakia?

A This is one group, certainly.

Q And these are all miners of this particular ore?

A That's my understanding, yes.

Q And isn't that uranium, ore that has some radioactivity?

A Has radioactivity.

you looked at?

DR. MACMANUS: No, we asked for it. I assume it is, but I think we could merely check that number, but I didn't you know, put any mark on that or even look at the number. It was just presented to me.

MR. JAMES: Would it be the same number that we have on our slide that was introduced in evidence?

DR. MACMANUS: It's S1082 which is the same number as the pathology accession number of the report from the scalene node biopsy.

MR. JAMES: That would identify it. Doctor, do you have obtained for us from the department of pathology of the University of Missouri Medical Center a slide, apparently containing specimens of some kind of tissue, is that correct?

A Correct.

Q And now that you have compared the number of this slide with the number carried on the pathologists report in Dr. Heaver's chart, can you identify that as being a slide prepared at your request by the pathology department from the biopsies by you here in the last day or two?

A Yes.

Q Now, let's seal it in an envelope and give it to the reporter.

MR. MAUNE: Before you seal it, shouldn't the reporter mark the envelope. It will be difficult for him to write on it with that inside.

(WHEREUPON MARKED DEFENDANT'S DEPOSITION EXHIBIT NUMBER 2, 5-23-69 FOR IDENTIFICATION)

Q Doctor, I'll hand you what has been marked by the reporter as Defendant's Deposition Exhibit 2, dated May 23, 1969, and ask you if that's an envelope of the University of Missouri Department of Surgery containing

the slide that we've been talking about?

A It is.

Q And I believe you stated that you had not examined this slide carefully?

A That's correct.

Q And this slide does contain several cuts from a specimen of tissue?

A Yes, specimen or specimens.

Q Oh, I thought it was from one specimen. Very well, it's several cuts from either a specimen or more than one specimen of tissue.

MR. JAMES: We offer this in evidence.

Mr. Miller is counting, temporarily the... all the slides in the pathology department, including the one that I have been keeping in my custody and the one that's introduced. George, I suppose we have the same agreement that if I want to use them for someone to look at, I can get them at your convenience and then you'll have them back if you want someone to look at them.

MR. MILLER: I had no idea that there was more than one slide. I see that there are several slides and might attempt to, briefly

MR. MILLER: with Mr. James, to identify the total number of slides.

MR. JAMES: Do you want to just state into the record the total number of slides?

MR. MILLER: Yes. Let the record show that the total number of slides contained in a black plastic box handed to me by Mr. James is twelve.

A Twelve? I didn't know there were that many either.

MR. MILLER: And that these slides, at least Exhibit Number 30 bears the number C27034. I see from looking at these slides that they have various numbers. Looking at Exhibit Number 30 and it bears the number S51042 and then looking at number 30....29, it bears the number S51041. Now you've identified this envelope that we've just been talking about as having a number similar to the one on the pathologists report, is that correct, Dr. Mackenzie?

A The number S51042 is the number that is on the pathologists report on the left scalene node biopsy.

MR. MILLER: Then, is it understood that in these twelve slides, the twelve slides bear various numbers?

A Yes, they include all the slides used in the two biopsies as well as the, I suppose, the cytology studies.

REDIRECT EXAMINATION

BY MR. MILLER:

Q Now, Doctor Mackenzie, when you identified this last slide that was presented to you today, as I understand, the only way you can identify it is the fact that it bears the same number as the pathologists report bears in the University Medical Report, is that correct?

A That's correct.

Q And you have not actually examined the slide up here, during this deposition to determine whether or not the slide you looked at?

A No.

Q Dr. Mackenzie, you were asked by Mr. James, that wasn't it generally accepted among medical authorities that there was no determined cause of lung cancer and your answer was no, that there were certain types of lung cancer or certain causes that were known, isn't that true?

A Yes.

Q I'll ask you if it is not generally accepted that among medical authorities that smoking is one of the accepted causes of lung cancer?

MR. JAMES: I'll object to that as being
MR. JAMES: leading and suggestive.
THE COURT: Overruled.

Q You may answer.

A Yes.

Q And I'll ask you whether or not among medical authorities it is generally accepted that there are various causes of various types of cancer and not all cancers are caused

A Would you repeat that?

Q Yes, we'll strike that. Mr. James asked you if someone were to suddenly come up with the cause of lung cancer, he would be given a medal and would be acclaimed as a hero in the public. I'll ask you whether or not it's true among medical authorities that, or it's generally accepted among medical authorities that there are...that various types of cancer have different causes?

A I think that's true, yes.

Q And it is accepted among medical authorities that there is no one basic cause of all cancers grouping them together, that's true, isn't it?

A I think that's generally so, yes.

Q Now, you were also asked by Mr. James if you could tell...strike that. If there were causes of non-smokers who had lung cancer and your answer was yes, and you were

asked if that cause of lung cancer in a non-smoker may have been the cause of lung cancer in Mr. Weaver. Now let me ask you this question. What has been your observation and experience as a medical practitioner in this specific field that we're dealing with right now, as to whether or not you have observed or seen any of this particular type of cancer that you found in Mr. Weaver in non-smokers?

A I do not recall any in my own experience of this type of cancer being seen in non-smokers.

Q Now in a non-smoker, is it not a fact that the type of cancer that is usually found is Adeno carcinoma?

A Yes, that is usually true.

Q And if I understand you correctly then, from your observation and experience and study, non-smokers do not get the undifferentiated cancer?

MR. JAMES: Now, just a minute. I object to that as being leading and suggective.

THE COURT: Overruled.

Q You may answer.

A Could we have that one back again, please?

Q Strike the question. I'll rephrase my question, Doctor. Is it a generally accepted fact among medical authorities that the type of cancer you found to exist in Mr. Weaver's lung does not usually, or rephrase it by

saying, rarely exists in a non-smoker?

A Yes, I think that's true.

Q You discussed with Mr. James the difference between a primary and a secondary cancer. Let me ask you this, was there anything in your examination, your entire treatment, the x-rays, the entire medical records, both of yours and the Wetzel Hospital that you studied and from your own personal observation and treatment of this man, was there anything that led you to believe that the cancer of the lung was not the primary cancer in this man?

A No.

Q You discussed briefly with Mr. James the question of carcinoma as opposed to sarcoma. Was there anything, Doctor, in this man's medical records, or in your examination, treatment of him, anything that would lead you to believe or even suspect that the lesion or the cancerthat you found in the lung was sarcoma?

A No, we never seriously considered sarcoma.

Q Was there ever any question in your mind as to whether or not the primary cancer was in the node, this lymph node that the biopsy was made from?

A No, we thought this was a secondary deposit or metastasis.

Q And did you believe that it had metastasized from

the cancer of the lung?

A Yes.

Q Was any determination or tests made upon Mr. Weaver to determine whether or not he had tuberculosis?

A There were skin tests made.

Q Were these made to determine whether or not he did have tuberculosis?

A The fact that the intermediate strength of the tuberculin skin test was negative would lead one away from the diagnosis of active tuberculosis, but is not conclusive evidence against it.

Q You were questioned about the sputum. As I recall there were about five sputum tests made. Four of them you said were successful tests in the fact that they showed no cancer?

A No, four of them were successful in that they were technically acceptable to the pathologist. One was technically not a satisfactory specimen.

Q And that these specimens did not show any cancer cells in the sputum?

A That's correct.

Q Now would the fact that there were no cancer cells that showed up in these four sputum tests, would that any way indicate that there was no cancer of the lung?

MR. JAMES: I object to that as being leading and suggestive.

THE COURT: Overruled.

A No, it would not.

Q What, if anything, Doctor, would the sputum tests indicate with reference to cancer of the lung?

A Well, of course, one may get actual malignant cells in cancer of the lung, but many times, in cases of proved cancer, there are no abnormalities detected by this test. If it's positive, it's helpful. If it's negative, it's not.

Q I gather from what you say that this would not be a determining factor at all?

A Only if it were positive.

Q Only if it were positive. If the x-ray that you have explained to the jury, showed this mass in the left portion of the lung and you believed that it was cancer from all of your medical experience as a medical practitioner, where would be the first place you would look to determine whether or not it was metastasizing?

MR. JAMES: I object to that as leading and suggestive, as assuming there was someplace he would look first.

THE COURT: Overruled.

Q You may answer.

A If you were concerned about metastiases (sic) from the lung, the first place you would look would be in the scalene area we've described before.

Q And is that the place where you did find the cancer cells?

A Yes.

Q I've asked you, Doctor, several question, in which I have requested your opinion. Let me ask you this. In giving me these opinions, have they been based upon reasonable medical certainty?

A Yes, they have.

MR. MILLER: I believe that's all.

REDIRECT EXAMINATION

BY MR. JAMES:

Q Doctor, these cytology tests did not in any way indicate cancer either, did they?

A They did not.

Q You've mentioned that you cannot look at this slide that we've introduced in evidence and tell whether it's the one you looked at the other day?

A With absolute certainty.

Q Well, when did you look at it the other day?

A We looked at it this morning.

Q You mean you're not sufficiently qualified as a

pathologist to tell if this is the same slide you looked at this morning?

A Well, I did not examine it this afternoon under the microscope.

Q Could you tell if you examined it?

A And even if we did examine it, it's possible that a very similar specimen with the same microscopic findings could be placedbefore me and I could not identify it as being the same one I saw this morning.

Q Well, when you looked at it this morning, you couldn't identify that as being one from Weaver's tissue, could you?

A Only that it had the same number as the major block of tissue and it was presented from our pathologists as being from the specimen.

Q And this one was introduced in evidence as the same number and it was sent down here by the same man?

A Yes.

Q So you can identify it as well as you can identify the one you looked at this morning?

A Except that he didn't give it to me personally as Mr. Weaver's specimen from Mr. Weaver's biopsy. I assume it is.

Q Well, you called him up and asked him to send it down and he said he would and you sent your secretary up [illegible]

to get it and she came back with a specimen?

A Right.

Q And you trust your secretary, don't you?

A Implicitly.

Q Implicitly. The fact remains as to the slide you looked at this morning and the slide you looked at this afternoon, so far as you can tell are the same slide and whether they came from Weaver or not depends upon whether they sent you what you requested?

A Right.

MR. JAMES: Doctor, that's all.

MR. MILLER: On the record, let me ask Mr. James a question. Without belaboring the record as to further identification of these University Medical Records, I did that in a very limited manner. I'm asking you if you have any objection or will have any objection at the trial of this case as to whether or not these records have been sufficiently identified?

MR. JAMES: I have no objection whatever unless my associates do. We can agree that all records and all the depositions introduced in the record may be put in evidence subject only to objections as to

competency and materiality and relevancy. The other objections have not anything to do with identification.

MR. MILLER: That's all.

MR. GEORGE MILLER: At this time I would like to offer in evidence these exhibits that have been marked. We may have offered them, and I believe we did, but if we didn't, I want to offer them. I offer all the exhibits that we have had marked.

(Whereupon counsel proceed to the bench where the following proceedings were had:)

MR. HANDY: If I know what you intend to say, I sure have no objection, but you had that book marked --

MR. GEORGE MILLER: I withdraw the offer of the book.

MR. HANDY: What you are talking about is all of the X-rays, slides and these things and you are not offering such things as Exhibit 46 which the Judge has already talked to us about.

MR. GEORGE MILLER: I think No. 46 is the only one.

MR. HANDY: I think that's probably right.

THE COURT: I think most of the other exhibits have already been admitted - if they have not, they will now be admitted except No. 46.

(Court discusses the matter of adjournment with the jury and counsel, off the record)

THE COURT: We will take a very short recess, about five minutes, and then we will go ahead for an hour or so tonight.

(Whereupon a short recess was taken)

(All Plaintiffs' Exhibits heretofore marked for identification, except Plaintiffs' Exhibit No. 46, and not heretofore received in evidence by the Court, are now received in evidence.)
